

REMARKS

Claims 1-3, 5-29, and 31-33 are now pending in the application. Claims 34-50 have been withdrawn from consideration in response to a restriction requirement. Independent Claim 1 has been amended to incorporate the subject matter of presently cancelled Claim 4. Likewise, Independent Claim 24 has also been amended to recite the subject matter of presently cancelled Claim 30. Minor amendments have been made to the specification and Claims 5, 12, 14, 24-25, 28-29, and 32 to simply overcome the objections to the specification and drawings, as well as the rejections of the claims under 35 U.S.C. § 112. Claims 9, 27, and 31-33 have been amended to address mere informalities and to provide proper antecedent basis for the claims. These amendments should not be construed as limiting, as the claims are commensurate in scope with those as originally filed. Entry of the amendments to the claims and specification is hereby requested. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

RESPONSE TO RESTRICTION REQUIREMENT PURSUANT TO 35 U.S.C §121

The Examiner determined that currently pending Claims 1-50, are subject to a restriction requirement pursuant to 35 U.S.C. §121. The Examiner has required restriction to one of the following inventions –

- I. Claims 1-33, drawn to an electrochemical cell and its associated electroconductive element, classified in class 429, subclass 34;

- II. Claims 34-49, drawn to a method of making an electroconductive element, classified in class 429, subclass 34;
- III. Claim 50, drawn to a method of distributing water within a fuel cell, classified in class 429, subclass 13.

As a result of the May 2, 2005 telephone conference between the Examiner and Anna Budde, Claims 1-33 directed to the invention of Group I were elected, with traverse. As such, Claims 34-49 and Claim 50, respectively drawn to the invention of Groups II and III, were withdrawn from consideration. Applicants traverse the restriction requirement for the following reasons.

Applicants submit that the invention of Group III (Claim 50 is directed to Group III) is not a distinct invention from the invention of Group I, as set forth by the Examiner. The product recited for example, in Claim 1 is suitable for use in fuel cell operation and not for use in a materially different process. Further, the Examiner cites that the Invention of Group III could be practiced with a fuel cell/electroconductive element of a different pore size than that of the invention in Group I. However, the independent claims of Group I did not previously recite a specific pore size. Claim 1 is currently amended to recite a limitation of the porosity, and while withdrawn, Claim 50 has likewise been amended to include a similar limitation. As such, Applicants traverse the restriction of Groups I and III on the grounds that they are a distinct product and a process of using. Applicants respectfully submit that Groups I and III are not distinct and request reconsideration of the restriction requirement.

In order to facilitate prosecution, Applicants hereby affirm the election to prosecute the claims directed to the invention of Group I (Claims 1-33). Thus, Claims 34-50 have presently been withdrawn from consideration. The right is hereby reserved to file further continuation and/or divisional patent applications for this subject matter

and Applicants are not, in any manner, waiving or abandoning any rights to this subject matter.

DRAWINGS

The drawings stand objected to for certain informalities. Applicants have revised the specification at Paragraph 27 to incorporate a description of the reference numeral 88 in Figure 2. Applicants submit that such a description does not introduce new matter, as support for the amendment was found in the drawings as originally filed. As such, Applicants believe that the amendment to the specification at Paragraph 27 addresses the Examiner's objection to the drawings, and hereby request reconsideration and withdrawal thereof.

SPECIFICATION

The specification stands objected to for certain informalities. Applicants have amended the specification according to the Examiner's suggestions, to capitalize the trademarks of TORAY®, INCONEL®, and METPORE® in Paragraphs 21, 41, and 55, and to ensure that all trademarks are accompanied by their generic descriptions. Therefore, reconsideration and withdrawal of this objection are respectfully requested.

REJECTION UNDER 35 U.S.C. § 112

Claims 4, 5, 12, 14, 24, 25, 28-30, and 32 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

Claims 4 and 30 have been cancelled, as described above. Applicants have amended Claims 5, 12, 14, 24-25, 28-29, and 32 to address the Examiner's rejections. For example, proper antecedent basis has been provided for Claims 14, and 28-29. Claims 5, 12, 24-25, and 32 have been amended to eliminate the term "relatively", which the Examiner has objected to. Applicants submit that these amendments overcome the §112 rejections, and respectfully request withdrawal of the rejections and allowance of the claims.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-3, 5-8, 10, 11, 16, 17, 19, 24-26, 28, and 29 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Miyazawa et al. (U.S. Pub. No. 2003/0235735). This rejection is respectfully traversed.

Independent Claims 1 and 24 have been amended to clarify the claimed invention, and now incorporate the subject matter of dependent Claims 4 and 30, respectively, each of which the Examiner indicated contained allowable subject matter. Independent Claim 1 recites, *inter alia*, a fluid distribution layer that is porous and has an average pore size larger than an average pore size of the liquid distribution media. The Miyazawa reference does not disclose or suggest a liquid distribution media that has an average pore size that is less than an average pore size of the fluid distribution layer, *i.e.*, that the fluid distribution layer has an average pore size that is larger than that of the liquid distribution media. While Miyazawa discloses a porous rib, it has no disclosure of providing any specific average pore size in comparison to the average pore size of a fluid distribution layer. Hence, there is no suggestion or motivation to

select a smaller average pore size for the liquid distribution media than for the fluid distribution layer. As such, Applicants submit that independent Claim 1 and the claims which rely upon it, namely Claims 2-3 and 5-23, are neither anticipated nor rendered obvious by the Miyazawa reference, and as such, Applicants respectfully request reconsideration and allowance thereof.

Independent Claim 24 now recites that the hydrophilic porous layer has a first and a second surface, where the first surface is an undulating surface that corresponds to flow channels, and the second surface is opposite to the first surface and is planar. The planar surface of the porous layer meets with a surface of an impermeable electrically conductive element. Claim 24 has been amended to recite the subject matter of currently cancelled Claim 30, which the Examiner indicated contained allowable subject matter. Miyazawa has no disclosure of a conductive porous layer that has a planar surface that meets with a major surface of the impermeable electrically conductive element and that further has an undulating surface along a second side. Miyazawa only discloses ribs that are discrete parallelepiped projections projected from the impermeable plate at equal intervals. See for example, Paragraphs 28, 29, and Figures 1, 2, and 4a. Miyazawa does not disclose a planar surface of a conductive porous layer that extends along and meets with a major surface of the impermeable plate and further has an opposite undulating surface that forms flow fields. Miyazawa further fails to provide any motivation or suggestion for using a contiguous porous layer that has a planar surface that meets with the major surface the plate, and instead suggests the use of a hydrophilic coating disposed on the plate's surfaces (No. 13 in Figure 2) for distributing liquids. See Paragraph 33 and Figures 2 and 4a, for example.

As such, Applicants respectfully request reconsideration of independent Claim 24 and its dependent Claims 25-29 and 31-33. Applicants respectfully submit that these claims contain patentable subject matter and are allowable over the Miyazawa reference.

REJECTION UNDER 35 U.S.C. § 103

Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyazawa et al. (U.S. Pub. No. 2003/0235735) in view of Davis (U.S. Pub. No. 2002/0001743). This rejection is respectfully traversed.

Claim 22 depends upon amended independent Claim 1, which now recites a limitation that a porous fluid distribution layer has an average pore size that is larger than an average pore size of the liquid distribution media. The Miyazawa reference does not disclose or suggest a liquid distribution media that has an average pore size that is smaller than an average pore size of the fluid distribution layer. As such, the Miyazawa reference either standing alone or in combination with the Davis reference, fails to disclose, suggest, or motivate one of skill in the art to arrive at the invention in Claim 22. As such, Applicants respectfully request reconsideration of the Claim 22 and withdrawal of the rejection.

ALLOWABLE SUBJECT MATTER

The Examiner indicated that claims 4, 9, 12-15, 18, 20, 21, 23, and 30-33 contain allowable subject matter, and would be allowed if rewritten in independent form. Applicants thank the Examiner for the thorough examination of the claims and for the indication of allowable subject matter. As described above, the subject matter of Claim 4

has been introduced into independent Claim 1, and Claim 4 has now been cancelled. Similarly, Claim 24 has been amended to incorporate the subject matter of currently cancelled Claim 30. Applicants respectfully submit that in light of these amendments, Claims 1-3, 5-29, and 31-33 are now in condition for allowance.

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Applicants are hereby submitting a supplemental information disclosure statement with a supplemental 1449 listing two U.S. patent references and accompanied by the appropriate fee, prior to the mailing of a final office action and/or a notice of allowance, pursuant to 37 C.F.R. §1.97(c). These references came to Applicants' attention during prosecution of co-pending application 10/375,392 filed on February 27, 2003 and cross-referenced in the IDS submitted in the present application on February 17, 2004.

Applicants respectfully request consideration of these references by the Examiner prior to the close of prosecution.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the

Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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